

In the Claims:

1. (currently amended) A combination in an aircraft comprising:

a valve having a rotatable adjusting shaft, by rotation of which said valve is adjustable selectively between an open end position and a closed end position; and an operating mechanism including a toothed gear element and a toothed rack cooperating with said toothed gear element;

wherein said toothed gear element includes gear teeth, is rotatable, and is mechanically connected to said adjusting shaft of said valve so as to transmit a rotating motion of said toothed gear element to said adjusting shaft; ~~[[and]]~~

wherein said toothed rack includes rack teeth engaging said gear teeth so as to convert and transmit a linear motion of said toothed rack to said rotating motion of said toothed gear element. ~~element; and~~

wherein said toothed rack and said toothed gear element are respectively configured and arranged so that said rotating motion of said toothed gear element is angularly limited to a limited angular range between said open end position and said closed end position of said valve, said rack teeth engage said gear teeth only over a limited linear range of said linear motion of said toothed rack corresponding to a circumferential developed length of said limited angular range of said rotating motion of said

27 toothed gear element, and said engaging of said rack teeth
28 with said gear teeth can be reversibly interrupted as said
29 linear motion of said toothed rack continues in either
30 direction past said limited linear range.

1 2. (original) The combination according to claim 1, wherein
2 said toothed gear element is mechanically connected
3 directly rigidly to said adjusting shaft of said valve, and
4 wherein said toothed gear element and said adjusting shaft
5 share a single common rotation axis.

1 3. (original) The combination according to claim 1, wherein
2 said valve is a valve of a drinking water supply system of
3 said aircraft which is a passenger transport aircraft.

1 4. (original) The combination according to claim 1, wherein
2 said operating mechanism further includes a push-pull cable
3 device comprising an inner push-pull cable slidably
4 arranged in an outer sheath, wherein said inner push-pull
5 cable is connected to said toothed rack so that said
6 toothed rack and said inner push-pull cable both undergo
7 said linear motion together.

1 5. (original) The combination according to claim 1, wherein
2 said operating mechanism further includes a counter
3 pressure roller that is rotatably arranged on a side of
4 said toothed rack opposite said toothed gear element and
5 applies pressure to said toothed rack toward said toothed

6 gear element so as to hold said rack teeth in positive
7 engagement with said gear teeth.

1 6. (currently amended) The combination according to claim 1,
2 wherein said toothed gear element includes only a limited
3 number of said gear teeth distributed over a limited
4 angular gear range corresponding to one-half of a valve
5 adjustment angular range of a maximum angular rotation of
6 said adjusting shaft limited to said limited angular range
7 between said open end position and said closed end position
8 of said valve.

1 7. (original) The combination according to claim 6, wherein
2 said toothed rack includes only a limited number of said
3 rack teeth suitable for engagement with said limited number
4 of said gear teeth, distributed over a limited linear rack
5 range corresponding to a circumferential developed length
6 of said limited angular gear range of said toothed gear
7 element.

1 8. (original) The combination according to claim 7, wherein
2 said toothed gear element further includes respective blank
3 gear sections without gear teeth on opposite sides of and
4 adjoining said limited angular gear range, said toothed
5 rack further includes respective blank rack sections
6 without rack teeth on opposite sides of and adjoining said
7 limited linear rack range, and said blank gear sections
8 allow said blank rack sections to disengage therefrom so

9 that said linear motion of said toothed rack can continue
10 disengaged from said rotating motion of said toothed gear
11 element beyond respective points at which said adjusting
12 shaft has been rotated to said open end position or said
13 closed end position of said valve.

1 9. (original) The combination according to claim 8, wherein
2 said blank gear sections are respective recessed sections
3 having a recessed floor at a depth of gear grooves provided
4 between said gear teeth, and said blank rack sections are
5 respective protruding sections having an un-grooved
6 un-toothed protrusion surface at a height of said rack
7 teeth.

1 10. (currently amended) The combination according to claim 8,
2 wherein said toothed gear element further includes
3 respective gear abutments on opposite sides of and bounding
4 said blank gear sections, said toothed rack further
5 includes respective rack abutments on opposite sides of and
6 bounding said blank rack sections, and said gear abutments
7 and said rack abutments are configured, arranged and
8 adapted respectively to contact one another to re-establish
9 an engagement of said toothed rack with said toothed gear
10 element when said toothed rack is moved back into said
11 limited linear range corresponding to a center partial
12 range of said linear motion of said toothed rack. ~~rack~~
13 ~~corresponding to a maximum range of said rotating motion of~~
14 ~~said toothed gear element.~~

1 11. (currently amended) The combination according to claim 1,
2 wherein said toothed rack includes only a limited number of
3 said rack teeth distributed over a limited linear rack
4 range suitable for achieving ~~[[a]]~~ said limited angular
5 range of said ~~rotational~~ rotating motion ~~limited~~ between
6 said ~~closed~~ open end position and said ~~[[open]]~~ closed end
7 position of said valve.

12. (canceled).

1 13. (currently amended) The combination according to claim
2 ~~[[12,]]~~ 1, wherein said toothed rack and said toothed gear
3 element are configured and arranged so that a re-engagement
4 of said rack teeth with said gear teeth is ensured once
5 said toothed rack moves back into said limited linear
6 range.

1 14. (original) A combination comprising:

2 a valve having a rotatable adjusting shaft, by
3 rotation of which said valve is adjustable selectively
4 between an open end position and a closed end position; and
5 an operating mechanism including a toothed gear
6 element and a toothed rack cooperating with said toothed
7 gear element;

8 wherein said toothed gear element includes gear teeth,
9 is rotatable, and is mechanically connected to said
10 adjusting shaft of said valve so as to transmit a rotating

11 motion of said toothed gear element to said adjusting
12 shaft;

13 wherein said toothed rack includes rack teeth engaging
14 said gear teeth so as to convert and transmit a linear
15 motion of said toothed rack to said rotating motion of said
16 toothed gear element;

17 wherein said toothed gear element includes only a
18 limited number of said gear teeth distributed over a
19 limited angular gear range;

20 wherein said toothed rack includes only a limited
21 number of said rack teeth suitable for engagement with said
22 limited number of said gear teeth, distributed over a
23 limited linear rack range; and

24 wherein said toothed gear element further includes
25 respective blank gear sections without gear teeth on
26 opposite sides of and adjoining said limited angular gear
27 range, said toothed rack further includes respective blank
28 rack sections without rack teeth on opposite sides of and
29 adjoining said limited linear rack range, and said blank
30 gear sections allow said blank rack sections to disengage
31 therefrom so that said linear motion of said toothed rack
32 can continue disengaged from said rotating motion of said
33 toothed gear element beyond respective points at which said
34 adjusting shaft has been rotated to said open end position
35 or said closed end position of said valve.

- 1 15. (original) The combination according to claim 14, wherein
2 said blank gear sections are respective recessed sections

3 having a recessed floor at a depth of gear grooves provided
4 between said gear teeth, and said blank rack sections are
5 respective protruding sections having an un-grooved
6 un-toothed protrusion surface at a height of said rack
7 teeth.

1 16. (original) The combination according to claim 14, wherein
2 said toothed gear element further includes respective gear
3 abutments on opposite sides of and bounding said blank gear
4 sections, said toothed rack further includes respective
5 rack abutments on opposite sides of and bounding said blank
6 rack sections, and said gear abutments and said rack
7 abutments are configured, arranged and adapted respectively
8 to contact one another to re-establish an engagement of
9 said toothed rack with said toothed gear element when said
10 toothed rack is moved back into a center partial range of
11 said linear motion of said toothed rack corresponding to a
12 maximum range of said rotating motion of said toothed gear
13 element.

1 17. (original) A combination comprising:
2 a valve having a rotatable adjusting shaft, by
3 rotation of which said valve is adjustable selectively
4 between an open end position and a closed end position; and
5 an operating mechanism including a toothed gear
6 element and a toothed rack cooperating with said toothed
7 gear element;

8 wherein said toothed gear element includes gear teeth,
9 is rotatable, and is mechanically connected to said
10 adjusting shaft of said valve so as to transmit a rotating
11 motion of said toothed gear element to said adjusting
12 shaft;

13 wherein said toothed rack includes rack teeth engaging
14 said gear teeth so as to convert and transmit a linear
15 motion of said toothed rack to said rotating motion of said
16 toothed gear element; and

17 wherein said operating mechanism further includes
18 means for selectively disengaging said toothed rack from
19 said toothed gear element for allowing said linear motion
20 of said toothed rack to continue disengaged from said
21 rotating motion of said toothed gear element beyond
22 respective angular stopping points of said toothed gear
23 element corresponding to said open and closed end positions
24 of said valve.

1 **18.** (new) A combination in an aircraft comprising:

2 a valve having a rotatable adjusting shaft, by
3 rotation of which said valve is adjustable selectively
4 between an open end position and a closed end position; and
5 an operating mechanism including a toothed gear
6 element and a toothed rack cooperating with said toothed
7 gear element;

8 wherein said toothed gear element is rotatable, is
9 mechanically connected to said adjusting shaft of said
10 valve so as to transmit a rotating motion of said toothed

11 gear element to said adjusting shaft, and includes only a
12 limited number of gear teeth distributed over a limited
13 angular gear range corresponding to one-half of a valve
14 adjustment angular range of a maximum angular rotation of
15 said adjusting shaft between said open end position and
16 said closed end position of said valve;

17 wherein said toothed rack includes only a limited
18 number of rack teeth for engagement with said limited
19 number of said gear teeth so as to convert and transmit a
20 linear motion of said toothed rack to said rotating motion
21 of said toothed gear element, wherein said rack teeth are
22 distributed over a limited linear rack range corresponding
23 to a circumferential developed length of said limited
24 angular gear range of said toothed gear element; and

25 wherein said toothed gear element further includes
26 respective blank gear sections without gear teeth on
27 opposite sides of and adjoining said limited angular gear
28 range, said toothed rack further includes respective blank
29 rack sections without rack teeth on opposite sides of and
30 adjoining said limited linear rack range, and said blank
31 gear sections allow said blank rack sections to disengage
32 therefrom so that said linear motion of said toothed rack
33 can continue disengaged from said rotating motion of said
34 toothed gear element beyond respective points at which said
35 adjusting shaft has been rotated to said open end position
36 or said closed end position of said valve.

1 19. (new) The combination according to claim 18, wherein said
2 blank gear sections are respective recessed sections having
3 a recessed floor at a depth of gear grooves provided
4 between said gear teeth, and said blank rack sections are
5 respective protruding sections having an un-grooved
6 un-toothed protrusion surface at a height of said rack
7 teeth.

1 20. (new) The combination according to claim 18, wherein said
2 toothed gear element further includes respective gear
3 abutments on opposite sides of and bounding said blank gear
4 sections, said toothed rack further includes respective
5 rack abutments on opposite sides of and bounding said blank
6 rack sections, and said gear abutments and said rack
7 abutments are configured, arranged and adapted respectively
8 to contact one another to re-establish an engagement of
9 said toothed rack with said toothed gear element when said
10 toothed rack is moved back into a center partial range of
11 said linear motion of said toothed rack corresponding to a
12 maximum range of said rotating motion of said toothed gear
13 element.

[RESPONSE CONTINUES ON NEXT PAGE]

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